

AN HISTORICAL SURVEY OF THE MACLEAY VALLEY

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AN HISTORICAL SURVEY OF THE MACLEAY VALLEY

BY

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EDITOR'S PREFACE

This study is one of a series prepared for the Macleay River County Council. The entire series, when completed, is intended to provide a comprehensive evaluation of the achievements of flood mitigation measures on the lower Macleay River, and an assessment of the future needs, in terms of water control and allied resource management, of the Macleay system.

The present study constitutes an historical outline of human occupation of the Macleay district. As such it constitutes a "frame of reference" study, providing some necessary insight into the background of the situation in which flood mitigation measures have been undertaken.

The study was undertaken by Mr. E.W.R. Thorpe B.Sc., who is a senior staff member of the Department of Geography of the University of New England.

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INTRODUCTION - THORPE REPORT

This report consists of an historical survey of the economic development, settlement evolution and population movements and trends in the Macleay Valley, from its earliest settlement by white men in 1835 to the mid-twentieth century.

The investigation considers the following points in the historical development of the Macleay:-

- 1) Early discovery and settlement.
- 2) Phases of economic development, including the following;
 - a) Initial cattle-sheep pastoralism.
 - b) Cedar cutting.
 - c) Maize and beef production.
 - d) Various abortive attempts at diversification, including rice production, vitticulture, sugar, tobacco and vegetable production.
- 3) The eventual shift to dairying, which is the dominant agricultural activity at present.

This report, by tracing the historical background to economic development in the Macleay, puts the present economic situation into perspective, and thus shows the value of the Flood Mitigation works undertaken by the M.R.C.C., and the importance of the gradual change in attitude of the people of the Macleay Valley.

Periods of slow advancement, interspersed with periods of stagnation or decline, and economic development being stifled and jeopardized by the threat of flooding, have given rise to an erratic pattern of development in the Macleay Valley.

This historical pattern of development may be said to have been largely imposed by the Flood hazard of the Macleay river, and shows the inability of man in the past to control or mitigate the effects of these Floods, or perhaps a passive acceptance of their inevitability.

However, with the initiation of Flood Mitigation measures

by the M.R.C.C., there was a basic change in the outlook of the people of the valley, and a feeling of optimism was generated, albeit slowly. It was gradually realised that the work of the M.R.C.C. was reducing the effects of Flooding, and that more stability and security was being introduced into the local economy. At the outset, there were many people who were antagonistic towards the M.R.C.C., but this gradually changed to a feeling of confidence since the M.R.C.C. works were obviously ameliorating the effects of Floods.

Thus the Flood Mitigation works of the M.R.C.C. are a progressive step in that they radically alter the hydraulic environment of the Macleay river¹ in order to foster the stability and expansion of agriculture by providing security from the worst effects of Flooding, and try to induce the secondary benefit of intensification of land-use on the basis of this security.²

This theme is developed and given some quantitative expression in McDonald's report, in which he shows that the work of the M.R.C.C. has begun an alteration of the historical pattern of development by ameliorating the most important factor moulding this pattern, and by introducing a different hydrological balance on the lower Macleay.

1. A Report on the Hydrological Implications of Flood Mitigation works on the Floodplain of the Macleay below Kempsey. G.T. McDonald.
2. The Economic Benefits of Flood Mitigation Works to Rural Land-Use. G.T. McDonald.

SETTLEMENT DEVELOPMENT IN THE MACLEAY.(a) Original Landscape of the Macleay River.

Prior to the settlement of the Macleay by whites in 183^f, the landscape was one characterised by an interspersed of four quite distinct vegetation types. These types developed due to marked difference in soil and location; there were the coastal dune and swamp type, the inland swamp type, the forest areas and the brush lands.

The first named areas, the coastal dune and swamp type, were then, as now, most inhospitable. Bare or lightly covered dunes extended back from the coast, and behind these were found extensive areas of salt marshes and swamps. Soils were sandy, lacking in humus, and unable to retain moisture. The growth of vegetation was very slight, consisting mainly of drought resisting shrubs. Some areas of mangrove swamp existed near the mouth, and on some alluvial flats, thickets of myrtle, palm and swamp oak were to be found. Oxley made the following comment on this area in his journal of 1817: "The soil, where we had opportunities of examining, was sandy and infertile, the timber small, even in situations where better might have been expected to grow".

The inland, or freshwater, swamp type covered large areas behind the levees of the river on both north and south sides. Soils were alluvial clays but the constant excess of moisture prevented tree growth. Vegetation consisted of reeds, swamp grass and sedge. The swamps abounded in bird life of various kinds, pelicans and ducks being most abundant.

The brushes, as they were termed, were found on the deep alluvial lands of the river, and its tributary creeks. The term "brush" is a misnomer common to the whole north coast, for in fact these areas were dense rain forest. It varied in width from a few chains to a mile, varying with the conformation of the country. The soils were rich and had a high humus content, and with the considerable rainfall of the area

a vegetation growth of great luxuriance had developed. Trees of massive proportions and of varied types abounded, reaching up to 150 feet in height. Of these the Red Cedar was the most numerous, but Flooded Gums, White Cedar, Mahogany, Rosewood, Sassafras, Corkwood, Box, Palms and Figs were present.

The great trees were entwined together by countless species of creepers, vines and parasitic plants of which the most common were the water vine, the lawyer vine and the wild raspberry. The soil of these areas was a rich alluvium, often of very great depth. A layer of raw humus covered the surface through which ferns of many types grew. It was this brush land which was later to be the greatest source of wealth to the valley, first in the abundance of cedar it provided, and later in its wealth as crop and cattle land. Bird life was abundant, flocks of pigeons, curlews, bronze winged pigeons, parrots and cockatoos of many types being found. Wallabies inhabited the brush in great numbers. At the rivers edge this dense mass of vegetation overhung the water for up to twenty feet, and smaller creeks were often completely enclosed by overhanging vegetation.

E. Rudder gives the following description of these "brushes" which of all the vegetation types has been most changed through the advent of whites in the area.

"No part of the North Coast could exceed the splendour and richness of the Macleay brush forests, and no district could excel it for its red cedar Nothing could equal the grandeur of its magnificent brown-leaved and small green leafed ficus, with their great ivy vines, climbing to their topmost limbs and falling to the ground from their great lower limbs..... I imagine rowing in a boat up or down a tidal stream of clear, sweet water two hundred yards wide, with walls of dense foliage of various shades of green rising on either side straight from the water to a height of 150 feet, with great flooded gums showing through and rising above the walls of green, with their white barrels and great limbs towering above the top of the green brush for another fifty or seventy feet. Here and there huge

huge ficus trees spread their tops above the brush to nearly the same level as the gums, crowning the green below with their great copper-coloured heads, over 150 feet in width among ferns of various kinds two feet high, and tree trunks and vines of all kinds and sizes - many of the vines wending their way to the tops of the trees overhead, and with their heads forming a mass of green that completely shelters you from the rays of the sun. Trees of all kinds and sizes and of all shapes and many kinds, and great vines twisted round their trunks like huge boa constrictors. You may find the ground in places a mass of dry leaves several inches deep, through which may be growing clumps of ferns and large ground orchids with their spikes of lovely cream - coloured blooms rising two feet from the ground. In places the trees all round may have their trunks enveloped with ivy or climbing ferns that make the trees appear to be lovely columns of green, all helping to make a canopy of dense green overhead".

Not all the alluvial land of the Macleay was covered with these brushes. Commencing about 20 miles from the coast and interspersed from there up river were alluvial plains of quite rich soil, but completely bare of trees. These grasslands varied in area from 50 to 100 acres and these were to be the first areas cultivated by the whites. Above the area now known as Belgrave Falls these clear plains became more numerous till most of the alluvial river bends were grass covered, often in a number of terrace - like layers.

Running back up slope from the lowland brushes and swamps was the fourth vegetation type, the forests. The soils in these areas were generally thin and infertile, with only a little humus reserve. The depth of the soil ranged from a few feet in the gently sloping areas to a few inches in the steep rugged hill lands. The trees were almost invariably eucalypts of reasonable size but fairly well spaced. Between them was found a mat of kangaroo grass giving these areas a park-like appearance. Augustus Rudder described the forest lands in these terms:

"The open forests being literally open the noble forest trees then stood fairly wide apart, enabling us to see their grand proportions, their huge branches overspreading magnificent pastures of kangaroo grass over knee deep, and as regular and even to look upon as a barley field, with here and there, either singly or in little groups, to be seen with their golden bloom, the green wattle...".

The more rugged the land the less grass grew in these forest areas, till on the steepest slopes stunted, closely spaced forest was found. The forest land was poor in bird life compared with the brush and swamp lands but kangaroos and wallabies occupied the area in great numbers.

Most frequently there was a distinct break line between brush and forest, the forest rising up like a green wall, but in places an intermediate scrub was found made up of ironbark, tallowood and bluegum.

Prior to white settlement, aborigines inhabited the Macleay in fair numbers. They lived in closely knit tribes of between 70 and 100 persons, each of which was a complete social unit occupying a set area of the valley. They lived by hunting and fishing, and as animal life was abundant in the valley they were healthy and strong. Some of the stronger tribes were the Yarrah-Bandini, Kempsey, Calliteeni, Tryal Bay, Yarrah-Hapinni, Clybucca, Wabro, Munga and Cunderang. Some of the names here are not true tribal names but were conferred on the tribes by the whites when they occupied the areas. Tribal warfare did occur but the tribes never did a great deal of damage to one another. Generally they were a peaceful, healthy contented people.

(b) Settlement and Development.

The first knowledge of the Macleay River area was gained in 1817 when the brig "Lady Nelson" located the entrance.

In November, 1918, Oxley entered the mouth, but encountering only land we have classified earlier as coastal dune and swamp land, he reported that the soil was sandy and infertile. His report that "there is nothing in the local situation of this inlet or the quality of the surrounding country which can at present render it an object of any interest", caused no further interest to be taken in the valley.

More detailed exploration of the valley did not take place until late in 1825 when a party from Port Macquarie prison settlement went north to check on the statements about the wealth of the area made by four prisoners who had escaped from Moreton Bay and trekked south to Port Macquarie. This party gave a vastly different report on the valley - "a most fertile country", "large quantities of immense cedar tree".

The party named the river Wright's River, but this was later changed to Trial River and then New or McLeay River. Finally, it was given its present name, the Macleay River.

The reports from Port Macquarie aroused much interest in Sydney, but despite requests for land, settlement was delayed further, as the authorities were unwilling to allow grants due to the fact that Port Macquarie was a convict settlement.

In 1835, however, the governor was prevailed upon to include the south side of the Macleay within the limits of the colony as part of the County of McQuarie. The forest grants were surveyed in 1835. They were large in size, the smallest being 640 acres for a Lieutenant Trappaud. From the beginning this land was utilised for timber getting, cattle breeding and maize growing.

Mr. E. Rudder, in 1835, subdivided part of his grant and named it the township of Kempsey. The main activities of the valley quickly concentrated there and it has remained the nodal point of the valley.

From this first settlement the valley developed steadily, though seldom spectacularly. More than in any other northern river valley the story of the development of the Macleay is the story of the development of farming and grazing pursuits. Mining has never played a significant part in the valley. Gold, which did so much to develop other areas, was not found in any quantity in the valley, and so no boom townships developed. The only significant mining carried on in the valley at any time was that for antimony at Corangula in the 1880's and the present lime mining at Yessabah. Very few attempts at manufacturing in any form have been attempted; enterprises, such as ship-building works and a soap and candle factory at Kempsey, having a short life. Fishing near the mouth has been carried on intermittently, but has never compared in importance with timber getting, agriculture or grazing.

Though the north bank of the river was officially outside the boundaries of settlement, squatters rapidly occupied land on both banks of the river, droving their herds of cattle and sheep overland from Port Macquarie or down from the precipitous slopes from New England. This movement was accelerated when permission to occupy was granted by the Act of October 1st, 1836, and by 1841 land had been taken up in stations up river as far as Cunderang*.

These stations utilised only the land within a few miles of the river, leaving unoccupied, as it virtually is today, the more serrated land backing these slopes. The lands were grazed in the English manner, using convicts and aborigines as shepherds.

On the brushes of the lower river the main activity was cedar getting. The sawyers arrived in the valley in 1836 and within a few years tremendous quantities of cedar were being shipped from the valley. Agriculture followed the clearing of this valuable land. Timber getting was the major occupation of the valley for its first twenty years, till by 1853 the whole of the cedar on the Lower Macleay,

* A few miles up river from the present "Kunderang Station".

below Belgrave Falls, had been cut and the land occupied for cultivation and grazing. With the removal of cedar, timber getting declined as the major source of income of the valley and was replaced by cropping and grazing. However, some mills turned to the production of hardwood, and timber getting in the forest areas has been continuous since then.

The earliest use of the land was a combination of agriculture and pastoralism. On the large stations sheep and cattle were grazed, though for many years the returns were unsatisfactory. In fact, failures were more frequent than successes, until the time when a boiling down works was established in Kempsey for the production of tallow. Between 1841 and 1844 there was a marked slump in the valley due to the shift of cedar getters north to the Nambucca and Bellinger. On the land newly cleared from brush, maize and wheat were grown, together with some vegetables. At this stage the corn was mainly used as cattle food, but some grain was purchased by the government for use as food in the convict settlements.

The land under cultivation was most frequently double cropped. The usual sequence in the early years was maize as the first crop, and then either wheat, potatoes, cabbage or turnips. Many areas were cropped while partially cleared, being opened up as clearing leases. Experiments were made in the earliest times into the growing of other crops. In 1841, experiments were made in the growing of sugar cane about Kempsey but these were unsuccessful. At the same time rice growing was attempted at Clybucca Creek. The first plantings were successful but later attempts failed. Vines also were grown in small quantities near Kempsey.

The valley was saved from isolation by coastal shipping. The first shipload of cedar was taken out of the valley by the "Medora" in early 1837. From that date onwards the amount of shipping serving the valley gradually increased till by 1859 the demand for shipping was such that a regular trading steamer was placed in service to the Macleay. Soon after 1860 the "Clarence and Richmond River

Steam Navigation Company" entered the Macleay River trade and this company, later to be known as "The North Coast Steamship Navigation Company", continued trade with the river almost without break till 1954. Other companies at times took part of the trade but were never the force in the river that the "North Coast Steamship Navigation Company" was. However, though the service in early years was regular, high freights delayed the development of the valley, costs to Sydney being as high as 2/- per bushel of maize in the gold rush period.

The absence of suitable overland connections in the early years also delayed the valley's growth. For many years only tracks connected the area to the Port Macquarie area, to New England and to the Northern Rivers area. The link to the north passed from Kempsey, over Christmas Creek to Yarrabandinni Station then north over the range. Two tracks linked the Macleay to the Port Macquarie area. The first passed over the ranges to Rollands Plains Station, and the second followed the lowlands through to Connection Creek, and thence along the Maria River. The tracks leading to north and south were later cleared for bullock dray tracks, and later roads followed the same routes. The first track to New England followed the river past Cunderang Station to the Chandler and then up to the plateau. This was replaced by a track up river to Nulla Nulla Creek, then up Nulla Nulla Creek along Kemp's Range and thence to Guy Fawkes. In 1855 William Smith and others cut a bullock dray track along this route. In 1864 a government road was constructed following this route, but later a deviation down the Big Hill to Georges Creek was made and the present road followed this path.

As only the south bank was at first included in the colony, Kempsey was at first situated on the high flood free south bank. However, about 1845 wharves and stores began to occupy the easier utilised flat land on the north bank, on the lands owned by Verge and Smith. Later government surveyors laid out a township of regular plan on the flood free land on the North Bank. This was named West Kempsey, the area on the Verge and Smith estates Central Kempsey and the original settlement East Kempsey.

The fact that the best alluvial land was tied up in grants and used for grazing purposes kept farmers off the Macleay. After 1851, some of the brush lands were measured up into farms of between 50 and 100 acres. However, the area under crop was still small till in 1861 Sir John Robertson's Land Bill came into operation and the best alluvial land was very rapidly taken up, being cultivated for maize while clearing was in progress.

It is impossible to give a continuous statistical account of the development of the Macleay Valley as an agricultural area due to the variation in areas by which statistics have been gathered. Areas used have been Pastoral Districts, Police Districts, Electorates, Counties and finally Shires.¹

The earliest figures available, those for the year ended 31st March, 1860 show that even prior to Sir John Robertsons Land Bill cropping was of considerable importance. In that year there were 247 occupiers of land, holding 9,299 acres² in the Macleay Pastoral District.³ Of this land one third was cultivated, 3,543 acres. Maize was almost the sole crop with 5,797⁴ acres devoted to it with a production of 210,310 bushels.

1 Earliest figures available are for the year ended 31st March, 1860 and are for McLeay portion of the New England and McLeay Pastoral Districts. For 1860 returns are for McLeay Pastoral District, for 1869 returns are for McLeay Pastoral District plus that part of McLeay River in County McQuarie. For 1879 returns are for Police District McLeay River. For 1890 figures are for McLeay Electorate.

From 1892 to 1920-21 returns are for County Dudley (excluded South side of Valley from Coast to Kempsey in County McQuarie). From 1920-21 onwards returns are for the Macleay Shire plus Kempsey Municipality. Certain returns for the years 1927-28 to 1939-40 are also available for Police Patrols.

2 This excludes, of course, land held in cattle runs

3 Whole valley excluding portion in County McQuarie

4 Double cropping

Of all other crops only potatoes (59 acres - production 180 tons) had over 50 acres devoted to its production. In this year, and up to 1880, between 40 and 200 acres were sown to wheat but the crop was never greatly successful. At this time there were 2505 horses in the district, 19,476 horned cattle, 100 sheep and 2539 pigs.

Kempsey in 1861 had a population of 233.

The concentration on two forms of production, maize and beef cattle, as shown in the above figures, and a steady expansion in the area of land devoted to them, is the main story of the Macleay from then to 1890. In 1869 in the Macleay Valley¹ there were 307 holders of freehold land and 482 holders of leasehold land. There were 3403 horses, 19,012 cattle, 8,000 pigs and 612 sheep grazed in the area. 15,605 acres of land were utilised for the production of maize. Small acreages were used for the production of potatoes, wheat, barley and oats. 970 acres were planted to sugar cane. This second attempt at the growing of cane commenced in 1868 and was quite successful for a time. Mills were placed on the Darkwater Creek,² at Smithtown, at Frederickton and at Kempsey. In 1869, 39,984 lbs of sugar were produced in the valley. However it was found that frost prevented the successful growing of cane and the acreage sown to this crop declined to 50 acres in 1880 and to nil in 1892. Vineyards also were increasing in importance, in 1869 670 gallons of wine being produced. However, the industry never expanded much past this level, greatest production being 2,000 gallons in 1893. The industry slowly declined and after 1920 no further wines were produced. Between 1860 and 1880 small acreages were planted of tobacco, and for a time great hopes were held for this crop. However, uncertain markets, and poor curing caused the cessation of its growing.

¹ Macleay Pastoral District plus part McLeay River in County Macquarie.

² Now Belmore River

The effect of Sir John Robertson's Land Bill in opening up the land for farming is reflected in the rapid expansion of Kempsey to an important business centre between 1861 and 1871. By 1871 the population of Kempsey had risen to 865, with a saw mill, flour mill, sugar mill, court house, Post Office, public school, School of Arts and two newspapers. The village of Frederickton had become of some importance with a population of 188. Small villages were beginning to develop at Darkwater and Summer Island.

In 1877 the first major constructional work in the valley commenced with the start of work on the Trial Bay jail. The first prisoners entered the building in 1886 and built the breakwater out into Trial Bay. However, before 1900 both breakwater and jail were abandoned.

In 1879 there were 961 holders of land in the McLeay Police District. 15,550 acres were under cultivation of which 15,244 acres were under maize for grain. 5,890 horses, 45,527 horned cattle, 7,876 pigs and 234 sheep were pastured.

By 1881 Kempsey's population had increased to 1321 and Frederickton's to 221.

Thus the pattern of the first 50 years of the Macleay Valley was one of entire dependence on timber, maize growing and beef cattle grazing. By 1885 this use of the valley had reached its limit and the next 5 years were marked by a slump in the valley brought on by the limited maize market and a series of floods. However, after 1886, a marked change came over the valley with the introduction of dairying. Much persuasion by the Leading men of the valley was needed to bring the farmers to favour the factory system but finally the first factory was opened at Warneton in 1890, to be followed shortly by factories at Smithtown, Frederickton, Kinchela and Kempsey. As in all north coast rivers the swing to dairying became strongest after 1890. At first the effect was an intensification of all agricultural pursuits but slowly cropping for grain began to decline in importance, and butter replaced maize as the mainstay of the valley. Table 1 gives some idea of the extent of change in the 15 years following 1892.

TABLE I.

Year	Acreage under Train Maize	No. of Dairy Cattle	No. of Beef Cattle	No. of Swine	Butter Produced lbs.	Cheese Produced lbs.	Bacon & Hams Produced lbs.
1892	10,237	3,701	21,724	7,359	43,909	280	37,290
1893	11,347	3,330	24,476	5,765	124,722	2,648	48,928
1894	11,614	3,458	22,212	6,458	199,049	4,909	75,694
1895	12,517	3,128	21,756	5,342	115,823	5,679	12,552
1896	12,679	3,999	23,297	4,584	142,941	1,510	31,510
1897	12,439	6,122	21,336	6,315	473,713	1,016	26,628
1898	12,106	7,962	24,720	6,907	-	-	-
1899	12,617	8,063	24,036	6,703	921,071	3,150	265,321
1900	12,266	6,532	27,382	4,960	838,369	200	496,310
1901	11,964	6,354	30,701	6,051	-	-	-
1902	10,844	5,335	24,649	4,723	701,576	-	462,088
1903	13,052	6,003	25,176	5,802	1,178,399	1,520	211,721
1904	10,990	6,498	28,180	7,466	1,825,255	1,000	391,813
1905	10,457	7,116	30,935	7,153	1,738,459	3,000	469,827
1906	9,693	7,717	32,004	5,834	2,072,500	-	342,539

The change to dairying brought about a concentration of population in towns, villages and localities. Where in 1891 only eight towns, villages and localities had a population of over 100, in 1901 there were seventeen. (see Table 2)

TABLE 2.

Locality	1891	1901
Arakoon	189	107
Austral Eden	-	268
Belgrave	-	141
Clybucca	147	-
Dongingalong	-	100
Euroka	166	166
Frederickton	343	443
Gladstone	177	275
Greenhill	119	166
Jerseyville	-	173
Kempsey	2,194	2,329
Kinchela Creek	-	102
Kinchela	-	205
New Entrance	-	182
Seven Oaks	175	127
Sherwood	-	101
Smithtown	221	255
Trial Bay	-	132

Thus, by 1900 the pattern of utilisation which the valley has followed since was set. The income of the valley has been almost solely provided by dairy produce and beef cattle since 1900 with minor contributions from timber getting, fishing and grain cropping. Later

bananas began to make a small contribution. The tendency for a high percentage of the population to concentrate in a few centres, shown in the figures for 1901 has become continuously stronger. Cultivation has become less and less important.

After the first great expansion of the dairying industry there has followed a period of very slow expansion. Dairying was carried on in the upper river for the first time following 1908 when the Toorooka Dairy Factory was established. Dairy cows in milk increased to 9,326* in 1910 but fell away somewhat during the war period and numbered only 8,032 in 1920-21. Butter production followed a somewhat similar trend, 2,141,449 lbs being produced in 1910, falling to 1,442,449 lbs in 1915, and rising to 2,127,430 lbs in 1920-21. In 1925-26, in the area included in the boundaries of the Shire of Macleay, 16,770 cows in milk were grazed and this number steadily increased over the next twenty years till in 1945-46 22,728 cows in milk were carried in the area.

This steady expansion in dairying has been accompanied by a slow decline in the area utilised for cultivation and a very marked change in the character of cultivation. In the County of Dudley the area cultivated dropped from 10,788 acres in 1910, to 9,332 acres in 1915 and 7,771 acres in 1920-21. In 1925-26 in the whole of the Macleay Shire and Kempsey Municipality only 10,836 acres were cropped. The area cropped stabilised at this figure for the next 20 years falling below 10,000 acres only in 1930-31 and 1931-32, and rising above 11,000 acres only in 1926-27. However, a further decline in area commenced in 1945-46, area under all crop in the Shire and Municipality falling from 10,372 acres in 1945-46 to 10,012 acres in 1947-48 and to 8,794 acres in 1949-50.

Along with this decline in area under cultivation went a very great change in the type of cultivation. In the first 75 years of settlement in the Macleay cultivation was almost synonymous with cultivation of maize for grain, at most a few hundred acres being used for other purposes. After 1910 however the area under maize for grain fell away considerably and other crops, particularly those utilised for green fodder became of considerable importance. The largest total acreage devoted to green fodder crops was 4,294 acres in 1939-40. Table 3 summarises the trend away from grain maize towards green fodder crops.

* County Dudley

TABLE 3.

Year	Percentage of land under cultivation used for production of grain maize	Percentage of land under cultivation used for production of green feed
1905	96.4	1.6
1910	95.6	1.7
1915-16	93.6	4.5
1920-21	91.4	7.9
1925-26	82.6	14.5
1930-31	62.2	33.0
1935-36	65.4	29.5
1939-40 *	56.1	39.0
1945-46	51.1	37.0
1949-50 *	46.4	39.1

* Statistics not available for 1940-41, 1950-51.

Accompanying this change in cropping from an individual industry to one in part dependent on the dairy industry, was an increasing change from natural pastures to sown pastures in the valley. This change-over has been a continuous process since dairying commenced but was most pronounced in the early 1930's, the area under sown grasses increasing from 99,687 acres in 1931-32 to 151,691 acres in 1936-37.

Over the period from 1905 onwards beef cattle numbers have remained fairly stable, the slow increase in numbers being due to clearing and use of lands already alienated in holdings, rather than due to new alienations, though the latter did play some part. Swine numbers showed a decline, falling from 19,491 in 1925-26 to 7,262. Most of this decline occurred in the war period.

In 1926 the first land in the Macleay was planted to bananas. Though this form of production has not developed to any great size it

has been important in that it utilised land which is virtually useless for any other purpose. Table 4 shows the expansion of areas developed to this use.

TABLE 4.

Year	Acres	Year	Acres
1927-28	1	1941-42	- *
1929-30	6	1943-44	- *
1931-32	30	1945-46	76
1933-34	81	1947-48	242
1935-36	100	1949-50	215
1937-38	106		
1939-40	84		

* Statistics not available due to war.

Small acreages have always been devoted to vegetables in the Macleay Valley, potatoes, pumpkins and melons being the most important. However, in the war years and immediate post-war years there was a marked expansion in the area devoted to vegetables. Potatoes and pumpkins remained the most important but considerable areas were devoted to peas and beans. In 1944-45 the noticeable area of 852 acres was devoted to the production of vegetables. In the years following, the acreage for all vegetable crops, except potatoes, has declined to near pre-war levels.

The tremendous village development which occurred in the years of change to dairying did not continue past 1901. In the census of 1911 only five new villages or localities of population over 100 were registered. In this period most established villages showed a slight increase in population. In 1921 only two new localities of over 100 were registered, in 1933 three and in 1947 three. However, as these localities developed others declined so that the actual

number of towns, villages and localities over 100 in population has remained very stable since 1901. (see Table 5)

TABLE 5.

Number of towns, Villages and Localities with over 100 persons

1861	1871	1881	1891	1901	1911	1921	1933	1947
1	2	2	8	17	20	20	21	22

However, though the total number of villages has remained stable there has been a steady increase in the number of people living in agglomerated settlements. This increase has been largely brought about by an increase in the four main centres in the valley - Kempsey, Smithtown, Gladstone and Frederickton. Generally the smaller villages and localities reached their largest population in 1921 and have declined somewhat since that date. The only notable exceptions to this decline have been Millbank, Willi Willi, Nulla Nulla, South West Rocks, Stuarts Point, Jerseyville and Yarrahapinni. New sources of income explain the increase in the last four named, South West Rocks and Stuarts Point expanding with tourism, Jerseyville with the fishing industry and Yarrahapinni with the growth of bananas. However, the greatest expansion has been in the four main urban centres, which have drawn into them the greatest bulk of the increase in population in the valley since 1901, till by 1947 a very high proportion of the population of the valley could be classified as town dwellers.

This centralisation within the valley has been a direct result of a number of factors. The first has been the rapid development of road transport in this century. This has enabled concentration of butter production and commerce in a few main centres. The second factor has been the development of other forms of transport favouring

large centres. The North Coast Railway mooted as early as 1904, reached Kempsey in 1917 and thus made it the focus of road, rail and water transport. With larger ships stopping points needed to be fewer and thus the larger centres were again favoured. The initial size advantage, and the commercial advantages conferred by favourable transport have allowed the expansion of these towns at the expense of smaller centres.

Thus the later development of the Macleay valley, following 1900, has been one of slow expansion of dairying and beef cattle grazing, decline of cropping, centralisation of population, and expansion of minor forms of production such as bananas, vegetables and tourism.

TABLE 6.

	1911	1921	1933	1947
Gladstone	276	500	497	590
Frederickton	539	513	492	718
Kempsey	2,959	3,613	4,824	6,330
Smithtown	365	442	647	901
Total Urban	4,139	5,068	6,460	8,539
Total Valley Population	9,638	10,892	13,467	14,916
% of Valley pop. in Kempsey.	30.7	42.4	35.8	42.4
% of Valley pop. in 4 main Urban centres	42.9	57.0	47.9	57.0

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